

Motor and Generator Manufacturing: 2002

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2002 Economic Census

Manufacturing

Industry Series



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-- Not applicable for this report.

Table 1. Historical Statistics for the Industry: 2002 and Earlier Years

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry and year ¹	Com- panies ²	All estab- lish- ments ³	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)	
			Number ⁴	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)					
335312, Motor and generator manufacturing	2002..	470	594	54 112	1 802 694	40 791	78 967	1 158 685	4 747 685	4 267 846	9 079 099	241 539
	2001..	N	N	60 962	1 929 365	45 946	89 915	1 200 196	4 866 777	4 514 848	9 389 600	208 165
	2000..	N	N	64 818	2 021 348	49 711	96 875	1 280 575	5 150 513	4 852 961	10 018 311	231 697
	1999..	N	N	69 300	2 131 915	53 975	106 078	1 407 621	5 404 426	5 425 624	10 815 043	257 851
	1998..	N	N	70 105	2 149 600	55 269	105 588	1 456 215	5 993 778	5 738 413	11 594 835	393 660
	1997..	559	718	74 171	2 172 250	57 853	115 681	1 456 910	6 123 289	6 027 446	12 174 434	322 255

¹Statistics presented for years ending in 2 and 7 are census data. Interim census years are derived in a representative sample of manufacturing establishments canvassed in the Annual Survey of Manufactures (ASM).

²For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

³Includes establishments with payroll at any time during the year.

⁴Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 2. Industry Statistics for Selected States: 2002

[States that are a disclosure or with less than 100 employees are not shown. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

Industry and geographic area	E ¹	All establishments ²		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
		Total	With 20 employees or more	Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
335312, Motor and generator manufacturing												
United States	—	594	308	54 112	1 802 694	40 791	78 967	1 158 685	4 747 685	4 267 846	9 079 099	241 539
Arkansas	—	16	13	4 684	140 268	3 947	7 784	110 273	561 300	355 747	910 538	18 823
California	3	56	21	1 487	50 928	1 002	1 958	28 164	126 189	77 560	203 073	5 389
Connecticut	—	9	6	483	19 080	282	594	8 868	24 177	64 089	96 451	1 552
Florida	7	12	4	223	7 589	162	329	5 350	16 652	11 161	26 971	1 187
Georgia	—	13	6	1 878	74 621	1 458	3 318	47 797	323 021	255 157	592 930	8 476
Illinois	—	31	18	2 412	91 251	1 775	3 634	57 514	214 903	118 580	331 806	12 893
Indiana	—	29	18	2 681	101 938	2 046	4 126	67 217	165 726	108 760	279 875	8 519
Kentucky	—	11	9	2 179	58 825	1 897	3 857	50 608	160 064	182 209	342 500	10 935
Maryland	—	4	2	174	7 734	130	258	5 913	12 891	5 026	20 417	436
Massachusetts	2	13	8	823	41 084	532	1 119	24 083	55 473	55 484	111 475	5 875
Michigan	1	20	7	1 106	32 246	866	1 695	22 146	79 998	73 314	152 473	4 006
Minnesota	—	18	9	2 769	120 696	1 624	2 703	59 561	261 129	513 339	775 369	11 233
Mississippi	—	12	9	2 026	51 507	1 655	3 274	35 485	174 287	127 716	300 986	7 334
Missouri	—	13	10	3 700	104 333	3 122	6 227	79 578	311 362	239 658	567 419	26 029
New Hampshire	2	6	3	219	8 797	121	184	4 342	16 723	8 887	27 332	463
New Jersey	2	16	7	370	14 102	260	511	8 648	30 277	21 842	51 923	1 662
New York	—	28	9	1 733	48 557	1 498	3 090	36 519	109 675	76 241	188 147	3 538
North Carolina	—	20	14	2 803	89 074	2 165	4 370	58 656	216 138	313 431	536 666	13 344
Ohio	1	40	23	4 704	152 676	3 247	5 303	84 492	335 766	249 270	577 836	28 858
Pennsylvania	3	25	10	1 672	57 431	1 242	2 532	40 466	136 642	84 014	223 294	7 945
Tennessee	—	24	17	3 050	86 150	2 604	4 891	68 586	168 949	147 149	315 424	16 607
Texas	—	29	11	1 848	74 846	987	1 870	29 763	220 073	188 127	431 491	6 007
Virginia	4	13	5	1 109	42 209	937	1 996	33 519	107 685	42 530	149 824	6 214
Wisconsin	—	39	27	5 794	192 877	4 006	7 178	100 732	540 955	629 299	1 168 893	20 119

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 3. Detailed Statistics by Industry: 2002

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Item	Value
335312, Motor and generator manufacturing	
Companies ¹	number.. 470
All establishments ²	number.. 594
Establishments with 1 to 19 employees	number.. 286
Establishments with 20 to 99 employees	number.. 169
Establishments with 100 employees or more	number.. 139
All employees ³	number.. 54 112
Total compensation	\$1,000.. 2 305 209
Annual payroll	\$1,000.. 1 802 694
Total fringe benefits	\$1,000.. 502 515
Production workers, average for year	number.. 40 791
Production workers on March 12	number.. 41 766
Production workers on May 12	number.. 41 609
Production workers on August 12	number.. 40 138
Production workers on November 12	number.. 39 583
Production worker hours	1,000.. 78 967
Production worker wages	\$1,000.. 1 158 685
Total cost of materials	\$1,000.. 4 267 846
Materials, parts, containers, packaging, etc., used	\$1,000.. 3 936 395
Resales	\$1,000.. 182 559
Purchased fuels	\$1,000.. 29 658
Purchased electricity	\$1,000.. 64 676
Contract work	\$1,000.. 54 558
Quantity of electricity purchased for heat and power	1,000 kWh.. 1 243 607
Quantity of electricity generated less sold for heat and power	1,000 kWh.. 241
Total value of shipments	\$1,000.. 9 079 099
Primary products value of shipments	\$1,000.. 8 190 297
Secondary products value of shipments	\$1,000.. 482 803
Total miscellaneous receipts	\$1,000.. 405 999
Value of resales	\$1,000.. 259 754
Contract receipts	\$1,000.. 28 404
Other miscellaneous receipts	\$1,000.. 117 841
Primary products specialization ratio	percent.. 94
Value of primary products shipments made in all industries	\$1,000.. 9 008 090
Value of primary products shipments made in this industry	\$1,000.. 8 190 297
Value of primary products shipments made in other industries	\$1,000.. 817 793
Coverage ratio	percent.. 91
Value added	\$1,000.. 4 747 685
Total inventories, beginning of year	\$1,000.. 1 314 779
Finished goods inventories	\$1,000.. 446 390
Work-in-process inventories	\$1,000.. 340 523
Materials and supplies inventories	\$1,000.. 527 866
Total inventories, end of year	\$1,000.. 1 218 087
Finished goods inventories	\$1,000.. 412 675
Work-in-process inventories	\$1,000.. 310 670
Materials and supplies inventories	\$1,000.. 494 742
Gross value of depreciable assets (acquisition costs) at beginning of year	\$1,000.. 3 539 402
Total capital expenditures (new and used)	\$1,000.. 241 539
Buildings and other structures (new and used)	\$1,000.. 26 766
Machinery and equipment (new and used)	\$1,000.. 214 773
Automobiles, trucks, etc., for highway use	\$1,000.. 6 277
Computers and peripheral data processing equipment	\$1,000.. 16 078
All other expenditures for machinery and equipment	\$1,000.. 192 418
Total retirements	\$1,000.. 197 655
Gross value of depreciable assets at end of year	\$1,000.. 3 583 286
Depreciation charges during year	\$1,000.. 283 913
Total rental payments	\$1,000.. 73 540
Buildings and other structures	\$1,000.. 37 367
Machinery and equipment	\$1,000.. 36 173
Total other expenses ⁴	\$1,000.. 367 973
Response coverage ratio ⁵	percent.. 82
Repair and maintenance services of buildings and/or machinery ⁴	\$1,000.. 52 146
Communications services ⁴	\$1,000.. 12 356
Legal services ⁴	\$1,000.. 6 947
Accounting, auditing, and bookkeeping services ⁴	\$1,000.. 4 228
Advertising and promotional services ⁴	\$1,000.. 16 954
Expensed computer hardware and supplies and purchased computer services ⁴	\$1,000.. 11 478
Refuse removal (including hazardous waste) services ⁴	\$1,000.. 4 653
Management consulting and administrative services ⁴	\$1,000.. 19 854
Taxes and license fees ⁴	\$1,000.. 24 370
All other expenses ⁴	\$1,000.. 214 986

¹For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Based on Annual Survey of Manufactures (ASM) sample data.

⁵A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those Annual Survey of Manufactures (ASM) establishments that reported to the weighted total employment for all ASM establishments classified in this industry.

Note 1: The amounts shown for other expenses reflect only those services that establishments purchase from other companies.

Note 2: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 4. Industry Statistics by Employment Size: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Employment size class	E ¹	All establishments ²	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
335312, Motor and generator manufacturing											
All establishments	—	594	54 112	1 802 694	40 791	78 967	1 158 685	4 747 685	4 267 846	9 079 099	241 539
Establishments with—											
1 to 4 employees	9	117	260	7 712	203	373	5 328	19 779	15 221	34 999	1 090
5 to 9 employees	9	82	571	17 930	458	894	13 161	46 890	36 771	83 544	2 567
10 to 19 employees	6	87	1 263	44 465	939	1 853	29 040	105 251	79 048	184 004	5 976
20 to 49 employees	1	106	3 422	112 792	2 412	4 809	66 654	263 640	228 793	496 652	11 487
50 to 99 employees	2	63	4 416	138 332	3 204	6 257	85 066	321 896	277 306	590 743	14 164
100 to 249 employees	1	74	12 446	409 329	9 661	19 104	275 101	903 089	824 416	1 733 704	55 697
250 to 499 employees	—	46	17 023	560 561	12 895	25 013	359 355	1 606 331	1 056 130	2 682 490	65 728
500 to 999 employees	—	15	9 773	338 103	7 503	15 347	225 115	1 022 428	992 543	2 064 673	49 948
1,000 to 2,499 employees	—	4	4 938	173 470	3 516	5 317	99 865	458 381	757 618	1 208 290	34 882
2,500 employees or more	—	—	—	—	—	—	—	—	—	—	—
Administrative records ⁴	9	219	1 501	45 834	1 160	2 251	31 280	120 714	95 024	214 838	6 931

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. Data are also included in respective size classes shown.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 5. Industry Statistics by Primary Product Class Specialization: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry or product class code	Industry or primary product class	All establishments ¹	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ²	Payroll (\$1,000)	Number ²	Hours (1,000)	Wages (\$1,000)				
335312	Motor and generator manufacturing . . .	594	54 112	1 802 694	40 791	78 967	1 158 685	4 747 685	4 267 846	9 079 099	241 539
3353121	Fractional horsepower motors (rated at less than 746 watts) (except hermetics)	101	20 368	633 261	16 115	31 438	425 873	1 704 568	1 382 013	3 094 665	93 829
3353123	Integral horsepower motors and generators other than for land transportation equipment (rated at 746 watts or more) (except hermetics)	54	10 984	380 610	8 237	16 392	245 782	1 035 021	797 954	1 878 611	42 075
3353125	Land transportation motors, generators, and control equipment (except parts)	5	221	13 685	182	401	10 946	19 375	16 939	36 042	781
3353127	Prime mover generator sets, except steam and hydraulic turbine	18	5 697	221 730	3 761	6 688	115 391	692 938	1 155 015	1 858 536	28 608
3353129	Fractional motor generator sets and other rotating equipment (including hermetics)	19	3 250	116 827	2 357	4 811	78 190	337 951	155 607	494 266	15 952
335312A	Integral motor generator sets and other rotating equipment (including hermetics)	23	3 617	117 280	2 685	4 989	75 344	300 829	253 251	560 619	19 069
335312C	Parts and supplies for motors, generators, generator sets, and other rotating equipment, excluding motors for built-in jobs	51	4 467	152 949	3 049	6 024	88 339	288 501	212 275	488 881	20 990
335312E	Armature rewinding on a factory basis	7	714	20 091	602	1 126	15 264	36 573	27 209	63 786	1 973

¹Includes establishments with payroll at any time during the year.

²Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6a. Products Statistics: 2002 and 1997

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments	
				Quantity	Value (\$1,000)
335312	Motor and generator manufacturing	2002.. N 1997.. N	X X	X X	9 008 090 11 911 618
3353121	Fractional horsepower motors (rated at less than 746 watts) (except hermetics)	2002.. N 1997.. N	X X	X X	2 988 762 5 178 561
33531211	Fractional horsepower motors (rated at less than 746 watts) (except hermetics)	2002.. N 1997.. N	X X	X X	2 988 762 5 178 561
3353121100	Fractional horsepower motors (rated at less than 746 watts) (except hermetics) ¹	2002.. 82 1997.. 107	X X	X X	2 988 762 5 178 561
3353123	Integral horsepower motors and generators other than for land transportation equipment (rated at 746 watts or more) (except hermetics)	2002.. N 1997.. N	X X	X X	1 732 642 2 245 671
33531231	Integral horsepower motors and generators other than for land transportation equipment (rated at 746 watts or more) (except hermetics)	2002.. N 1997.. N	X X	X X	1 732 642 2 245 671
3353123100	Integral horsepower motors and generators other than for land transportation equipment (rated at 746 watts or more) (except hermetics) ¹	2002.. 64 1997.. 70	X X	X X	1 732 642 2 245 671
3353125	Land transportation motors, generators, and control equipment (except parts)	2002.. N 1997.. N	X X	X X	197 275 332 612
33531251	Land transportation motors, generators, and control equipment (except parts)	2002.. N 1997.. N	X X	X X	197 275 332 612
3353125100	Land transportation motors, generators, and control equipment (except parts) ¹	2002.. 16 1997.. 19	X X	X X	197 275 332 612
3353127	Prime mover generator sets, except steam and hydraulic turbine	2002.. N 1997.. N	X X	X X	1 776 270 1 648 488
33531271	Prime mover generator sets, except steam and hydraulic turbine	2002.. N 1997.. N	X X	X X	1 776 270 1 648 488
3353127100	Prime mover generator sets, except steam and hydraulic turbine ¹	2002.. 25 1997.. 19	X X	X X	1 776 270 1 648 488
3353129	Fractional motor generator sets and other rotating equipment (including hermetics)	2002.. N 1997.. N	X X	X X	482 673 502 708
33531291	Fractional motor generator sets and other rotating equipment (including hermetics)	2002.. N 1997.. N	X X	X X	482 673 502 708
3353129100	Fractional motor generator sets and other rotating equipment (including hermetics) ¹	2002.. 36 1997.. 28	X X	X X	482 673 502 708
335312A	Integral motor generator sets and other rotating equipment (including hermetics)	2002.. N 1997.. N	X X	X X	534 313 618 360
335312A1	Integral motor generator sets and other rotating equipment (including hermetics)	2002.. N 1997.. N	X X	X X	534 313 618 360
335312A100	Integral motor generator sets and other rotating equipment (including hermetics) ¹	2002.. 28 1997.. 43	X X	X X	534 313 618 360
335312C	Parts and supplies for motors, generators, generator sets, and other rotating equipment, excluding motors for built-in jobs	2002.. N 1997.. N	X X	X X	695 578 679 835
335312C1	Parts and supplies for motors, generators, generator sets, and other rotating equipment, excluding motors for built-in jobs	2002.. N 1997.. N	X X	X X	695 578 679 835
335312C100	Parts and supplies for motors, generators, generator sets, and other rotating equipment, excluding motors for built-in jobs ¹	2002.. 93 1997.. 109	X X	X X	695 578 679 835
335312E	Armature rewinding on a factory basis	2002.. N 1997.. N	X X	X X	64 851 113 707
335312E1	Armature rewinding on a factory basis	2002.. N 1997.. N	X X	X X	64 851 113 707
335312E100	Armature rewinding on a factory basis	2002.. 12 1997.. 26	X X	X X	64 851 113 707
335312W	Motor and generator manufacturing, nsk, total	2002.. N 1997.. N	X X	X X	535 726 591 676
335312WY	Motor and generator manufacturing, nsk, total	2002.. N 1997.. N	X X	X X	535 726 591 676
335312WYWW	Motor and generator manufacturing, nsk, for nonadministrative-record establishments	2002.. N 1997.. N	X X	X X	348 411 387 713
335312WYWY	Motor and generator manufacturing, nsk, for administrative-record establishments	2002.. N 1997.. N	X X	X X	187 315 203 963

¹For additional detail, see Current Industrial Report MA335H, Motors and Generators.

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Table 6a. **Products Statistics: 2002 and 1997**—Con.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6b. **Product Class Shipments for Selected States: 2002 and 1997**

[Product classes covered are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by data in Table 2. Also, product classes are not shown if they are miscellaneous or "not specified by kind" classes. Statistics for some states are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 2002. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographic definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS product class code	Product class and geographic area	Value of product shipments (\$1,000)
3353121	Fractional horsepower motors (rated at less than 746 watts) (except hermetics)	
	United States..... 2002..	2 988 762
	..... 1997..	5 178 561
	Arkansas..... 2002..	327 002
	..... 1997..	472 951
	California..... 2002..	43 045
	..... 1997..	86 802
	Connecticut..... 2002..	26 222
	..... 1997..	101 651
	Florida..... 2002..	7 090
	..... 1997..	N
	Illinois..... 2002..	160 214
	..... 1997..	277 453
	Indiana..... 2002..	177 687
	..... 1997..	245 133
	Minnesota..... 2002..	9 017
	..... 1997..	40 425
	Missouri..... 2002..	342 074
	..... 1997..	490 739
	New York..... 2002..	181 889
	..... 1997..	N
	Ohio..... 2002..	204 709
	..... 1997..	238 945
	Pennsylvania..... 2002..	90 307
	..... 1997..	133 371
	Tennessee..... 2002..	149 635
	..... 1997..	255 092
	Wisconsin..... 2002..	293 894
	..... 1997..	664 833
3353123	Integral horsepower motors and generators other than for land transportation equipment (rated at 746 watts or more) (except hemetics)	
	United States..... 2002..	1 732 642
	..... 1997..	2 245 671
	California..... 2002..	37 449
	..... 1997..	46 040
	Minnesota..... 2002..	78 139
	..... 1997..	98 234
	Missouri..... 2002..	159 479
	..... 1997..	N
	New York..... 2002..	70 478
	..... 1997..	N
	Ohio..... 2002..	140 047
	..... 1997..	262 149
	Tennessee..... 2002..	112 812
	..... 1997..	N
	Texas..... 2002..	187 445
	..... 1997..	N
3353125	Land transportation motors, generators, and control equipment (except parts)	
	United States..... 2002..	197 275
	..... 1997..	332 612
3353127	Prime mover generator sets, except steam and hydraulic turbine	
	United States..... 2002..	1 776 270
	..... 1997..	1 648 488
	Wisconsin..... 2002..	434 329
	..... 1997..	452 846
3353129	Fractional motor generator sets and other rotating equipment (including hermetics)	
	United States..... 2002..	482 673
	..... 1997..	502 708
	California..... 2002..	30 692
	..... 1997..	N
	Ohio..... 2002..	7 318
	..... 1997..	N
335312A	Integral motor generator sets and other rotating equipment (including hermetics)	
	United States..... 2002..	534 313
	..... 1997..	618 360
	California..... 2002..	8 704
	..... 1997..	69 412
	Tennessee..... 2002..	87 296
	..... 1997..	169 865
	Wisconsin..... 2002..	129 144
	..... 1997..	59 610
335312C	Parts and supplies for motors, generators, generator sets, and other rotating equipment, excluding motors for built-in jobs	
	United States..... 2002..	695 578
	..... 1997..	679 835
	California..... 2002..	14 615
	..... 1997..	10 390
	Connecticut..... 2002..	8 499
	..... 1997..	N
	Illinois..... 2002..	9 044
	..... 1997..	36 763
	Indiana..... 2002..	29 459
	..... 1997..	6 768
	Minnesota..... 2002..	72 795
	..... 1997..	48 218
	New York..... 2002..	2 828
	..... 1997..	39 188
	North Carolina..... 2002..	41 540
	..... 1997..	N
	Ohio..... 2002..	93 711
	..... 1997..	134 916

See footnotes at end of table.

Table 6b. **Product Class Shipments for Selected States: 2002 and 1997—Con.**

[Product classes covered are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by data in Table 2. Also, product classes are not shown if they are miscellaneous or "not specified by kind" classes. Statistics for some states are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 2002. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographic definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS product class code	Product class and geographic area	Value of product shipments (\$1,000)
335312C	Parts and supplies for motors, generators, generator sets, and other rotating equipment, excluding motors for built-in jobs—Con.	
	United States—Con.	
	Pennsylvania..... 2002..	39 025
	..... 1997..	50 202
	Tennessee..... 2002..	36 525
	..... 1997..	N
	Texas..... 2002..	11 261
	..... 1997..	21 100
335312E	Wisconsin..... 2002..	32 292
	..... 1997..	43 329
	Armature rewinding on a factory basis	
	United States..... 2002..	64 851
	..... 1997..	113 707

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 7. Materials Consumed by Kind: 2002 and 1997

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Material code	Material consumed	Quantity	Delivered cost (\$1,000)
335312	Motor and generator manufacturing		
00900001	Total materials .....2002..	X	3 936 395
	.....1997..	X	5 436 953
332000AC	Metal stampings .....2002..	X	129 528
	.....1997..	X	218 133
33272203	Metal bolts, nuts, screws, washers, rivets, and other screw machine products .....2002..	X	82 858
	.....1997..	X	93 160
33200041	All other fabricated metal products (excluding forgings) .....2002..	X	92 954
	.....1997..	X	N
33210000	Forgings .....2002..	X	13 381
	.....1997..	X	N
33151001	Iron and steel castings (rough and semifinished) .....2002..	X	83 697
	.....1997..	X	129 730
33152005	Aluminum and aluminum-base alloy castings (rough and semifinished) .....2002..	X	71 113
	.....1997..	X	99 213
33152003	Other nonferrous metalcastings, rough and semifinished (excluding aluminum and aluminum-base alloy) .....2002..	X	13 409
	.....1997..	X	52 701
33120007	Steel bars, bar shapes, and plate (excluding castings, forgings, and fabricated metal products) .....2002..	X	55 805
	.....1997..	X	151 171
33120016	Steel sheet and strip (including tinplate) .....2002..	X	278 761
	.....1997..	X	N
33120025	Steel wire and wire products .....2002..	X	17 066
	.....1997..	X	26 194
33120015	All other steel shapes and forms (excluding castings, forgings, fabricated metal products, bars, bar shapes, plate, sheet, strip, wire and wire products) .....2002..	X	70 310
	.....1997..	X	101 295
33100093	Copper and copper-base alloy bare wire for electrical conduction only .....2002..	X	4 975
	.....1997..	X	36 074
33142105	Copper and copper-base alloy rod, bar, and mechanical wire (including extruded and drawn shapes) .....2002..	X	17 869
	.....1997..	X	84 099
33142139	All other copper and copper-base alloy shapes and forms (excluding castings, forgings, fabricated metal products, bare wire, rods, bars, and mechanical wire) .....2002..	X	28 009
	.....1997..	X	25 921
33100038	Aluminum and aluminum-base alloy shapes and forms (excluding castings, forgings, and fabricated metal products) .....2002..	X	46 473
	.....1997..	X	N
33100082	Other nonferrous metal shapes and forms (excluding aluminum and aluminum-base alloy and copper and copper-base alloy castings, forgings, and fabricated metal products) .....2002..	X	12 158
	.....1997..	X	N
33100097	Magnet wire .....2002..	X	183 687
	.....1997..	X	312 906
331000A3	Insulated copper wire and cable (excluding magnet wire) .....2002..	X	45 072
	.....1997..	X	57 157
33131201	Primary aluminum and aluminum-base alloy refinery shapes .....2002..	X	10 948
	.....1997..	X	8 300
33361811	Diesel and semidiesel engines .....2002..	X	209 522
	.....1997..	X	D
33361805	Gasoline and other carburetor engines .....2002..	X	142 345
	.....1997..	X	D
33531211	Fractional horsepower electric motors (less than 1 hp) .....2002..	X	41 845
	.....1997..	X	109 906
33531221	Integral horsepower electric motors and generators (1 hp or more) .....2002..	X	25 617
	.....1997..	X	81 858
33299101	Ball and roller bearings (mounted or unmounted) .....2002..	X	52 985
	.....1997..	X	97 814
33361301	Plain bearings and bushings .....2002..	X	18 409
	.....1997..	X	45 917
33361200	Mechanical speed changers, gears, and industrial high-speed drives .....2002..	X	20 883
	.....1997..	X	20 653
33441300	Semiconductors (including transistors, diodes, rectifiers, and integrated circuits), for electronic circuitry .....2002..	X	45 127
	.....1997..	X	104 065
33599105	Carbon brushes .....2002..	X	19 280
	.....1997..	X	22 661
32711303	Ceramic magnets (ferrite) .....2002..	X	23 447
	.....1997..	X	73 569
32610013	Plastics products consumed in the form of sheets, rods, tubes, film, and other shapes .....2002..	X	45 774
	.....1997..	X	128 315
32521105	Plastics resins consumed in the form of granules, pellets, powders, liquids, etc. ....2002..	X	23 756
	.....1997..	X	91 961
32551002	Paints, varnishes, stains, lacquers, shellacs, japans, enamels, and allied product .....2002..	X	21 315
	.....1997..	X	N
33500007	Electrical industrial capacitors, resistors, rheostats, and coil windings .....2002..	X	72 372
	.....1997..	X	156 200
001900B1	Electrical transmission, distribution, and control equipment .....2002..	X	72 720
	.....1997..	X	89 588
32221001	Paperboard containers, boxes, and corrugated paperboard .....2002..	X	37 410
	.....1997..	X	40 118
00970099	All other materials and components, parts, containers, and supplies .....2002..	X	1 185 857
	.....1997..	X	1 551 750
00971000	Materials, ingredients, containers, and supplies, nsk .....2002..	X	619 658
	.....1997..	X	1 123 865

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.